

## Bending Beam Rheometer

The Bending Beam Rheometer (BBR) measures flexural creep stiffness of asphalt binder at low temperatures (ambient to  $-40^{\circ}\text{C}$ ). A constant load is applied to the center of a small asphalt beam specimen, and the deflection of the beam is measured and recorded. Tests are quickly and easily set up and parameters input through the included PC with pre-installed software. Load, displacement, and bath temperature are displayed and displacement, loading, and temperature graphs are displayed throughout the test cycle. Stiffness is calculated at the lowest temperature anticipated.

HM-59 BBR is constructed of stainless steel and durable, high-strength polymer components. The unit uses an air bearing system (50 PSIG minimum, clean, dry compressed air source required) to assure reliable loading with accurate and repeatable results. A linear variable displacement transducer (LVDT) with a range of 6.35mm and accuracy to  $\pm 2\mu\text{m}$  measures deflection. The temperature-compensating 500g load cell with mechanical overload protection ensures accurate load results. Safe, rapid cooling of the test fluid (Ethylene Glycol/Water/Methanol) to  $-40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ ) is provided by the mechanical refrigeration system. Process temperature is controlled and monitored by two independent platinum RTD temperature transducers to maintain temperature stability.



The HM-59 includes a Computer with pre-loaded control, acquisition, and analysis software, five aluminum specimen Molds with mylar strips, a Calibration Kit with required weights, and Confidence Beam. Calibrated test weights and a certified LVDT NIST-traceable standard are provided with each system. The easy-to-use software allows daily verification and periodic calibration of load cell, LVDT, and RTD transducers. Dimensions: 49x49x41in (1,245x1,245x1,040mm), LxWxH. Est. Ship Wt.: 487lbs (221kg). Adequate compressed air source must be supplied by user.

### Standards

- AASHTO T313
- ASTM D 6648